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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,839	11/25/2003	Wendy Maury	IOWA:035USD1	3197

7590 04/18/2006

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EXAMINER

LUCAS, ZACHARIAH

ART UNIT

PAPER NUMBER

1648

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/721,839		MAURY ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Zachariah Lucas		1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,9-15,18-38 and 40 is/are pending in the application.
- 4a) Of the above claim(s) 10-15,25,26 and 29-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 18-24, 27, 28, 34-38, and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### DETAILED ACTION

1. Claims 1, 9-15, 18-38, and 40 are pending in the application.
2. In the prior action, mailed on October 18, 2005, claims 1, 9-15, 18-38, and 40 were pending in the application. In the action, claims 1, 9, 18-24, 27, 28, 34-38, and 40 were rejected; and claims 10-15, 25, 26, and 29-33 were withdrawn as to non-elected inventions.

A Response was filed on March 9, 2006.

3. Currently, claims 1, 9, 18-24, 27, 28, 34-38, and 40 are under consideration.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **(Prior Rejection- Maintained)** Claims 1, 9, 18-24, 27, 28, 34-38, and 40 were rejected under 35 U.S.C. 103(a) as being unpatentable over the teachings of Lehrer et al., WO 02/085401. These claims are directed to methods of reducing the infectivity of a virus, particularly HIV, through administration of the peptide of SEQ ID NO: 32, with or without additional anti-viral agents. The Applicant traverses the rejection on the grounds that (a) the Lehrer reference does not specifically teach the peptides of either SEQ ID NO: 31 or 32, and (b) that the teachings of

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the Lehrer reference indicate the making and use of a large number (2116) of peptide. These arguments are not found persuasive.

As the Applicant indicates, the size of a genus that is disclosed by a reference is a factor to be considered. However, the Federal Circuit Court of Appeals has also stated that "it is not the mere number of compounds in this limited class which is significant here but, rather, the total circumstances involved." See, *In re Baird*, 29 USPQ2d 1550, at 1552 (1994). In the present case, the reference teaches a number of specific nonapeptides that may be combined, and indicates that any two of these peptides may be combined to result in an operable retrocyclin. From these teachings, those of ordinary skill in the art would have been able to immediately envisage each of the various resulting retrocyclins. Thus, while the reference provides teachings rendering obvious a genus of 2116 peptides (representing a combination of any two of the peptides listed on page 7-8 of the reference), because the reference provides the sequences, each of these peptides is equally obvious. Further, the reference indicates that each of these peptides would be operable, thus providing both motivation and a reasonable expectation of success.

Further, while the Applicant asserts that other factors such as the predictability in the art must be considered, the Applicant has provided no basis to show unexpected results or other reasons to indicate that the specific peptides being claimed are rendered non-obvious over these teachings. There is no indication of any uncertainty regarding the combination of the nonapeptides identified by Lehrer. Nor has the Applicant provided any teachings of demonstration that the presently claimed peptides are more effective antibiotics or antivirals than the other peptides. Thus, while relevant, the factor of uncertainty is not considered to lead away from a finding of obviousness.

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In short, because the Lehrer reference (a) discloses the specific sequences of the peptides that may be combined and (b) indicates that any combination of two such peptides would result in an operable retrocyclin, the reference renders obvious any retrocyclin that would result from the combination of any two of the indicated sequences, absent some other indication of non-obviousness. While the reference renders obvious a large number of peptides, the fact that it discloses the specific peptides that may be combined enables those of ordinary skill in the art to immediately envisage each of those combinations. For these reasons, the Applicant's arguments in traversal of the rejection are not found persuasive. The rejection is therefore maintained for the reasons above, and the reasons of record.

### ***Conclusion***

6. No claims are allowed.
7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

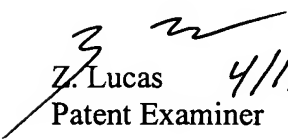
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachariah Lucas whose telephone number is 571-272-0905. The examiner can normally be reached on Monday-Friday, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Z. Lucas  
Patent Examiner

  
JAMES HOUSEL  
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